UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA,

v.

W. SCOTT HARKONEN,

Defendant.
_____/

No. C 08-00164 MHP

MEMORANDUM & ORDER

Re: Defendant's Post-Trial Motion to Dismiss the Indictment, for Acquittal or for a New Trial

On September 29, 2009, a federal jury found defendant W. Scott Harkonen ("Harkonen") guilty of one count of wire fraud, 18 U.S.C. § 1343, and not guilty of one count of felony misbranding, 21 U.S.C. §§ 331(k), 333(a)(2) & 352(a). Before the court is Harkonen's post-trial motion to dismiss the indictment, for acquittal under Federal Rule of Criminal Procedure 29, or for a new trial under Federal Rule of Criminal Procedure 33. Having considered the parties' arguments and submissions and for the reasons stated below, the court enters the following memorandum and order.

BACKGROUND

Because the evidence relevant to Harkonen's motion is discussed in greater detail below, the court provides only a brief summary of the allegations and proceedings. The evidence at trial showed that from 1998 until at least June 3, 2003, Harkonen was the Chief Executive Officer of InterMune, Inc. ('InterMune"). InterMune, a California-based pharmaceutical company, developed,

marketed and sold drugs for lung and liver diseases. One of the drugs that InterMune sold was called "interferon gamma-1b" and was marketed under the brand name of "Actimmune." By 2000, when InterMune fully purchased the rights to Actimmune from the company that had developed the drug, Actimmune had only been approved by the Food and Drug Administration ("FDA") for the treatment of two very rare conditions: chronic granulomatous disease and severe, malignant osteopetrosis.

In 1999, a small Austrian clinical trial showed that Actimmune might be a promising treatment for another rare and fatal disease, idiopathic pulmonary fibrosis ("IPF"). IPF is characterized by progressive scarring, or fibrosis, of the lungs which leads to the lung's deterioration and destruction. The cause of IPF is unknown, and once afflicted, IPF sufferers generally die within two to three years. There are approximately 200,000 individuals in the United States who suffer from the disease, and 50,000 new cases are diagnosed each year. In response to the Austrian study, InterMune launched its own, much more ambitious study of Actimmune's efficacy in treating IPF. The study, known as the GIPF-001 Phase III trial ("the GIPF-001"), was designed primarily to test whether patients being treated with Actimmune were more or less likely to experience "progression-free survival time"—delayed or prevented the worsening of patients' IPF. The GIPF-001 also collected data relevant to a number of other hypotheses regarding Actimmune's effect on IPF.

In mid-August 2002, InterMune was provided with the results from the GIPF-001. On August 28, 2002, InterMune issued a press release, claiming, among other things, that the data from the study "[d]emonstrat[ed a] survival benefit of Actimmune in IPF" and that Actimmune "Reduces Mortality by 70% in Patients with Mild to Moderate Disease". Gov't Exh. 1 (Press Release), attached to this order as appendix 1.

The press release, as well as other conduct engaged in by Harkonen and InterMune, formed the basis for the indictment in this case, which was filed on March 18, 2008. The ten-page, two count indictment charged Harkonen with wire fraud in violation of 18 U.S.C. section 1343 (Count One) and felony misbranding of a drug in violation of 21 U.S.C. sections 331(k), 333(a)(2) and 352(a) (Count Two). The wire fraud count alleged that the press release "contained materially false

and misleading information regarding Actimmune and falsely portrayed the results of a GIPF-001 Phase III trial as establishing that Actimmune reduces mortality in patients with IPF." Docket No. 1 (Indictment) ¶ 26.

After significant pretrial motion practice, Harkonen's trial began on August 12, 2009. The case went to the jury on September 23, 2009. The jury deliberated for four days, finding Harkonen guilty of wire fraud and not-guilty of felony misbranding.

Harkonen filed his post-trial motion on December 4, 2009, and the court conducted a hearing on February 19, 2009.

LEGAL STANDARD

I. Rule 29

Upon a defendant's motion under Federal Rule of Criminal Procedure 29, a court "must enter a judgment of acquittal of any offense for which the evidence is insufficient to sustain a conviction." Fed. R. Crim. P. 29. "The evidence is sufficient to support a conviction if, 'viewing the evidence in the light most favorable to the prosecution, any rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt.' " *United States v. Magallon-Jimenez*, 219 F.3d 1109, 1112 (9th Cir. 2000) (citing *Jackson v. Virginia*, 443 U.S. 307, 319 (1979)). "[A]ll reasonable inferences are to be drawn in favor of the government, and any conflicts in the evidence are to be resolved in favor of the jury's verdict." *United States v. Alvarez-Valenzuela*, 231 F.3d 1198, 1201-02 (9th Cir. 2000)

II. Rule 33

Federal Rule of Criminal Procedure 33 provides that "the court may vacate any judgment and grant a new trial if the interest of justice so requires." Fed. R. Crim. P. 33. In considering a Rule 33 motion, " '[t]he district court need not view the evidence in the light most favorable to the verdict; it may weigh the evidence and in so doing evaluate for itself the credibility of the witnesses.' " *United States v. A. Lanoy Alston, D.M.D., P.C.*, 974 F.2d 1206, 1211 (9th Cir. 1991) (quoting *United States v. Lincoln*, 630 F.2d 1313, 1319 (8th Cir. 1980)). " 'If the court concludes that, despite the abstract

sufficiency of the evidence to sustain the verdict, the evidence preponderates sufficiently heavily against the verdict that a serious miscarriage of justice may have occurred, it may set aside the verdict, grant a new trial, and submit the issues for determination by another jury.' " *Id.* at 1212 (quoting *Lincoln*, 630 F.2d at 1319). Such a motion should be granted, however, only "in exceptional circumstances in which the evidence weighs heavily against the verdict." *United States v. Hsieh Hui Mei Chen*, 754 F.2d 817, 821 (9th Cir. 1985) (citing *United States v. Primentel*, 654 F.2d 538, 545 (9th Cir. 1981)).

DISCUSSION

Harkonen presents three arguments for why he is entitled to the dismissal of the indictment, a judgment of acquittal or, in the alternative, a new trial. First, Harkonen asserts that his Due Process rights under the Fifth Amendment were violated because the wire fraud statute did not provide him with sufficient notice that he could face criminal sanctions for the conduct at issue in this case, and thus, the court should dismiss the indictment. Second, Harkonen contends that he is entitled to a judgment of acquittal or a new trial under, Federal Rules of Criminal Procedure 29 and 33, because, at trial, the government failed to produce sufficient evidence that he violated the wire fraud statute. Finally, Harkonen argues that he is entitled to the dismissal of the indictment or a judgment of acquittal because the conviction violates the First Amendment. Because Harkonen's sufficiency of the evidence claim forms the core of his post-trial motion, the court assesses it first.

I. Sufficiency of the Evidence

Harkonen asserts that the government failed to present sufficient evidence such that the jury could find, beyond a reasonable doubt, that he knowingly made a false or fraudulent statement with the intent to defraud. The wire fraud statute provides that:

> Whoever, having devised or intending to devise any scheme or artifice to defraud . . . by means of false or fraudulent pretenses, representations, or promises, transmits or causes to be transmitted by means of a wire . . . communication in interstate or foreign commerce, any writings, signs, signals, pictures, or sounds for the purpose of executing such scheme or artifice . . . shall be guilty of an offense against the United States.

18 U.S.C. § 1343. The jury instructions required, in part, that the jury find beyond a reasonable doubt that Harkonen (1) made at least one "false or fraudulent statement"; (2) knew the statement(s) "were false or fraudulent at the time they were made"; and (3) "acted with an intent to defraud." Docket No. 256 (Gov't's Opp'n), Exh. A (Jury Instructions) at 16. Harkonen contends the evidence at trial was insufficient for the jury to find that each of these elements had been proven beyond a reasonable doubt. The court addresses each element in turn.

A. False or Fraudulent Statement

As discussed above, the indictment against Harkonen required that the government prove beyond a reasonable doubt that the August 28, 2002 press release contained "materially false and misleading information regarding Actimmune and falsely portrayed the results of the GIPF-001 Phase III trial as establishing that Actimmune reduced mortality in patients with IPF." Indictment ¶ 26. The jury instructions reflected that burden, requiring that the jury unanimously find beyond a reasonable doubt that "the defendant made up a scheme or plan to defraud by making false or fraudulent statements, with all of you agreeing on at least one false or fraudulent statement that was made." Jury Instructions at 16. The jury instructions explained that "[f]alse or fraudulent statements may include deceitful statements, half-truths, or statements which omit material facts. A statement is false or fraudulent if known to be untrue or made with wanton or reckless disregard for its truth or falsity and made with the intent to deceive." *Id.*; *see United States v. Woods*, 335 F.3d 993, 998 (9th Cir. 2003); *Lustiger v. United States*, 386 F.2d 132, 138 (9th Cir. 1967). Harkonen asserts the evidence introduced at trial, even when viewed in the light most favorable to the government, is insufficient to establish that the statements in the press release were false or fraudulent.

To place this argument in context, it is necessary to provide significant detail about the GIPF-001 Phase III trial, the results of which the August 28, 2002 press release purported to summarize and interpret. The jury heard considerable testimony regarding how pharmaceutical trials are generally conducted and how the drug study at issue in this case was actually conducted. The GIPF-001, which sought to test Actimmune's efficacy as a treatment for IPF, was a randomized, double-blind, placebo-controlled trial. Randomized, double-blind, placebo-controlled studies

represent the "gold standard" for determining the "relationship between a drug and a health outcome." *In re Neurontin Mktg., Sales Practices, and Prods. Liab. Litig.*, 612 F. Supp. 2d 116, 125 (D. Mass. 2009) (citing Michael D. Green et al., *Reference Guide on Epidemiology*, in *Reference Manual on Scientific Evidence* 333, 335 (Fed. Judicial Ctr. 2d ed. 2000)).

> In such a trial, subjects are assigned randomly to one of two groups: one receives the drug and the other does not, often receiving a placebo instead. The study is also "double-blind," meaning that neither the participants nor those conducting the study knows which group is receiving the actual drug and which group is receiving the placebo.

Id.; *see also* Trial Transcript (TT) at 361-62 (Dr. Marc Walton ("Walton"), Associate Director at the FDA, testifying about randomized, double-blind, placebo-controlled trials). The GIPF-001 involved 330 patients at 58 separate locations throughout the United States. Gov't Exh. 288 (GIPF-001 Clinical Study Report) at 74. 162 patients were treated with Actimmune, while 168 received a placebo. *Id.*

The jury heard testimony that, before undertaking a Phase III trial, like the GIPF-001, researchers set forth detailed study protocol, which includes, among other things, the objectives of the study (i.e., what causal relationships the study is attempting to measure), the inclusion and exclusion criteria for determining who will be allowed to participate in the trial, the procedures for administering the treatment and recording results, and specifications for how the data from the study will be analyzed. TT at 359, 370-71 (Walton testimony); Gov't Exh. 281 (Final Protocol for GIPF-001). After a study begins, it is not uncommon for the protocol to be changed; however, a final protocol must be in place before the study's data is "unblinded" (i.e., made available) to the study's researchers. *Id.* at 360-61 (Walton testimony). The predetermination of the study's objectives (or "endpoints" as they are typically called) as well as the criteria for how the data will be analyzed (known as a "statistical analysis plan") is crucial for maintaining the integrity of the study. By prespecifying what the study is intended to measure and how it will be measured, researchers preclude themselves from manipulating the data after it is "unblinded" in order to identify a favorable result. *Id.* at 371 (Walton testifying that "[i]t's well-understood if one can look at the data and then pick out which parts of the data we would like to analyze and in which way, we can always

find something in the data that will look positive"); *Id.* at 2187 (Michael Crager ("Crager"), former InterMune Senior Director of Biostatistics, testifying that a statistical analysis plan is crucial to "show that the methods were not determined by the data. That is, you set the methods in advance, didn't analyze several different ways and pick the one that looks best"); *Id.* .at 673 (Thomas Fleming ("Fleming"), a professor of Biostatistics at the University of Washington and a supervisor of the GIPF-001, testifying that a statistical analysis plan "recognizes that there are a large number of ways you can analyze the data. And you need to structure what is the principal analysis and what the secondary and follow-up analyses are to understand these statistical analyses").

InterMune created a protocol for the GIPF-001 in 2000, prior to the start of the trial, and made several amendments to the protocol prior to the unblinding of the data on June 26, 2002. *See* Gov't Exhs. 274–81. Throughout the various iterations of the protocol, the GIPF-001 had one primary endpoint, progression-free survival time; progression of IPF was defined as either a specific, measurable decrease in Forced Vital Capacity ("FVC"), a measure of lung function, an increase in the A-a gradient of 5 mmHg, another measure of lung function, or the death of the patient. Gov't Exh. 274 (Original Protocol) at 10; Gov't Exh. 281 (Final Protocol) at CDER003-1147. In its final form, the protocol also identified ten secondary endpoints, listed in order of clinical relevance, along with eight exploratory endpoints. Final Protocol at CDER003-1147-48. The seventh secondary endpoint, which (as will be seen below) ultimately became crucial to the August 28, 2002 press release, was "survival time." *Id.* at CDER003-1147. In addition, the investigators created a detailed statistical analysis plan. Gov't Exh. 282.

To establish the falsity of statements made in the August 28, 2002 press release, the government called Thomas Fleming ("Fleming"), a Professor of Biostatistics at the University of Washington, and Michael Crager ("Crager"), the former Senior Director of Biostatistics at InterMune who was the principal biostatistician working on the GIPF-001. Both witnesses had substantial and impressive experience in biostatistics. Fleming testified to his distinguished thirty-year record as a biostatistician, overseeing more than 200 clinical trials, publishing more than 200 articles and several books about biostatistics, and working as a special government employee,

advising the FDA regarding the effectiveness of drugs in clinical trials. TT at 644-50; *see* Gov't Exh. 256 (Fleming's Curriculum Vitae). Relevant to the instant case, Fleming served as one of three members of the Data Monitoring Committee (DMC) for the GIPF-001, which was a group of outside, independent scientists responsible for protecting the safety of the patients involved in the study. Crager received a Ph.D. in biostatistics from Stanford University, and worked in industry as a biostatistician for twenty-seven years. TT at 2175-77. He testified that, during his employment with InterMune and elsewhere, he had worked on approximately 80 to 100 clinical trials in his career. *Id.* at 2178.

The jury heard substantial testimony from Crager and Fleming regarding how investigators analyze and interpret the data from clinical trials. The significance of a trial's results is primarily expressed through what is known as a "p-value," which is a number between 1 and 0. *Id.* at 2185-86 (Crager testimony); *id.* at 674 (Fleming testimony). The p-value is a "measure of how likely the result you saw would have been to occur by chance alone . . . ." *Id.* at 2186 (Crager testimony); *see also id.* at 674 (Fleming testifying that "[a] p-value is an analytical tool that we use to present how unlikely the events would be by chance alone"). The lower a p-value is, the greater probability that the result perceived in the data is not due to chance. Both Crager and Fleming testified that in the world of biostatistics, a p-value of 0.05 is somewhat of a magic number. *Id.* at 2186 (Crager testifying that 0.05 is a "standard cutoff"); *id.* at 674 (Fleming testifying that "by tradition, [statisticians] define 'success' to be a two-sided p-value of .05"). A p-value of 0.05 indicates that the data obtained in the trial would occur by chance less than 5 percent of the time. *Id.* As a general matter, if the p-value is less than 0.05, a study's results are considered statistically significant; if greater, than 0.05, the results are generally considered unreliable and not statistically significant. *Id.*

Crager and Fleming provided other testimony, however, that emphasized that in order to properly interpret a p-value, it is necessary to know the context in which that p-value was generated. *Id.* at 703 (Fleming testifying that "I always say that you can only interpret [p-values] when you understand the sampling context in which they were derived"); *id.* at 676 (Fleming testifying that the significance of a p-value "all depends on your sampling context"). A p-value of 0.05 or lower for a

primary endpoint, a study's primary objective, generally indicates statistically significant relationship. However, for a variety of reasons, researchers must apply different statistical methodology when analyzing secondary endpoints or any data not prespecified in the protocol and statistical analysis plan.

First, Fleming and Crager testified that even in a study where there is a statistically significant finding with respect to the primary endpoint, researchers must adjust their analysis of the p-values of secondary endpoints in order to account for the "multiplicity" effect. *Id.* at 676-78, 685 (Fleming testimony); *see also id.* at 2326 (Crager testifying that "if you were trying to do a rigorous test of a secondary endpoint, then, yes, you have to put a procedure in place that accounts for multiple testing"). Fleming described this multiplicity effect using an analogy:

> [I]f you give yourself one chance to win, if you're looking at the prespecified primary analysis of the prespecified primary endpoint, then it is true, [that if you have a p-value of 0.05] you have only a five percent chance of a false positive, only a five percent chance of declaring that you're effective when you're not. But that's not at all true if you give yourself many analyses, many chances to win.
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> . . . .
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> It's a multiplicity issue. . . . Suppose you were looking at somebody who is . . . a good marksman. . . . If you set up a target that any one of us if we took a shot would have one in twenty chance to hit, then you took a single shot, it would be impressive if you hit it. Only one in twenty people could . . . . But if you gave that person twenty, forty, sixty, eighty shots, and they hit it once, most of us could do that. So when you're understanding a p-value it's really important to know how many different analyses were done.

Id. at 677. Accordingly, Fleming testified that if you have more than one analysis, the measure of success no longer is 0.05, but a lower threshold. Fleming suggested that industry practice was to divide 0.05 by the number of endpoints "to ensure that you are accounting for having multiple chances to win." *Id.* at 678.

Second, Fleming and Crager testified that if a study misses its primary endpoint—that is, if the p-value for the primary endpoint is greater than 0.05—that all other analyses arising out of that study, including analysis of secondary endpoints, "from there on [are] exploratory." *Id.* at 2188. (Crager testimony); *see id.* (Crager testifying that if the primary endpoint misses, "[y]ou cannot make any definitive conclusions about any [secondary endpoints], and you're just trying to look at

the data to generate new hypotheses to test hopefully in the future"); TT at 678 (Fleming testifying that "in a rigorous sense, one has to be incredibly cautious about that, because the p-values that we're giving can no longer really be interpreted the way that we've been discussing. . . . [Y]ou clearly cannot interpret the p-values on those secondary measures the way you would interpret the p-value on the primary endpoint"). According to Fleming, this caution is necessary for the following reason: In designing a study, investigators hypothesize that a drug will act through certain "mechanisms" to effect the targeted biological condition. The primary endpoint is selected as the best available measure of that mechanism of effect. Secondary endpoints typically are selected as less precise measures of the same mechanism. When the primary endpoint fails, it throws the entire hypothesis regarding the mechanism of effect of the drug into doubt. It therefore casts even greater doubt upon secondary endpoints, which were predicated upon the same mechanism, but were even less precise measures of that mechanism. Therefore, once the primary endpoint fails, investigators must be very cautious about drawing any conclusions from secondary endpoints. *See id.* at 278-79 (Fleming testimony); *see id.* at 2326 (Crager testimony).

Third, the jury heard testimony from Crager and Fleming regarding the pitfalls of drawing conclusions from exploratory subgroup analyses of the data, especially when such analyses were not prespecified in the statistical analysis plan. A subgroup analysis examines the effect of the drug on a subset of trial participants who share certain characteristics, for example only men or only older individuals. *Id.* at 682 (Fleming testimony). Fleming explained that the data from subgroup analyses is of use for exploring future hypotheses to test as a primary or secondary endpoint, but has limited if any conclusive power. As Fleming stated, subgroup analyses "are widely-recognized to be, at best, what are called 'hypothesis generating'," meaning "if you see evidence that treatment effect may differ across subgroups, that in most instances it's really critical" that they be "independently confirmed by a future trial." *Id.* at 683; *see also* Gov't Exh. 3 (September 5, 2002, letter from Fleming to InterMune) at INR544-9768 ("It is recognized that conducting exploratory subgroup analyses can be a useful exercise, but the results are notoriously unreliable. . . . [W]hen one allows multiplicity of testing by multiple analyses over time, by multiple study endpoints, and

particularly by multiple trial subgroups, [a p-value lower than 0.05] would be obtained in almost any trial even when treatment truly has no effect on outcomes."); TT at 2240 (Crager explaining that even a very low p-value on a subgroup analysis is "very hard to interpret"). Fleming and Crager testified that when such analyses are conducted on a post-hoc basis—that is, any analysis that was not prespecified in the statistical analysis plan—researchers must exercise even greater caution. *Id.* at 682-83 (Fleming explaining that post-hoc analyses "are typically very unreliable"); *id.* at 2240 (Fleming stating that post-hoc p-values "are very hard to interpret" and that, at best, a low p-value in a post-hoc analysis "means that there's a suggestion that there may be something here").

With these biostatistics principles in mind, the jury also heard substantial testimony and received evidence regarding how Harkonen and InterMune analyzed, interpreted and ultimately publicized the data from the GIPF-001 trial. Pursuant to the study's protocol, the data was kept confidential until August 16, 2002, when three of the four members of InterMune's Sponsor Management Committee ("SMC"), including Harkonen, Dr. Jim Pennington ("Pennington"), InterMune's Executive Vice President of Medical and Scientific Affairs, and Crager were unblinded. *Id.* at 2195-98; *see* Gov't Exh. 283 (Plan for Sponsor Management Committee Assessment of Study GIPF-001).[1]

On August 16, 2002, Crager was the first to examine the results of the trial. TT at 2198 (Crager testimony). He received the analysis, which had been outsourced to a company named Pharmanet, by email. *Id.* To Crager, it was immediately apparent that the study had missed its primary endpoint as well as all ten of the secondary endpoints. The p-value for the primary endpoint, progression-free survival time, was 0.52, far too high to demonstrate any statistically significant correlation. Def. Exh. 524 (GIPF-001 Study Results) at 3UW 021625; TT at 2201 (Crager testifying that he interpreted the data as showing "[n]o apparent effect at all on the primary efficacy endpoint. The indices didn't show any difference whatsoever, and the p-values were very high showing no evidence whatsoever"). Crager did notice a "trend" toward a survival benefit, one of the secondary endpoints, which had a p-value of 0.084, slightly above the traditional 0.05 threshold of statistical significance. GIPF-001 Study Results at 3UW 021700; TT at 2201-02

(Crager testimony). 16 of the 162 patients (9.9%) being treated with Actimmune died during the duration of the study, compared to 28 of 168 patients (16.7%), representing a more than 40% decrease in mortality. GIPF-001 Study Results at 3UW 021700. After his initial review of the results, Crager reported this information to Harkonen and Pennington. TT at 2202 (Crager testimony). He told them "we had no evidence of an effect on the primary efficacy endpoint, but that there was a trend in the survival data, and that we might want to follow-up and do another trial . . . to make survival the primary endpoint." *Id.* at 2204 (Crager testimony).

The next day, August 17, 2002, of his own accord, Crager contacted Pharmanet and requested that it run a statistical analysis of survival time for subgroups of trial participants with FVCs greater and less than 60%. *Id.* at 2205-07 (Crager testimony). As is mentioned above, FVC is a measure of lung function, in which the higher the percentage, the better the function. Crager received the subgroup results on the afternoon of August 21, 2002. *Id.* at 2210 (Crager testimony). The data indicated that only 3 of 90 patients treated with Actimmune who had a FVC greater than 60% died during the study, while 12 of 92 with a FVC lower than 60% died, yielding a p-value of 0.024. GIPF-001 Study Results at 3UW 021702. Upon receiving the results, Crager shared them with Harkonen and Pennington. *Id.* at 2210 (Crager testimony). Harkonen then directed Crager to request that Pharmanet run a different subgroup analysis, dividing the patients into severe, moderate and mild IPF sufferers on the basis of their FVC. *Id.* at 2210 (Crager testimony). Harkonen suggested looking at three subgroups: those with severe IPF (FVC 0-55%), moderate IPF (FVC 56-70%) and mild IPF (FVC 71-100%), but asked Crager to verify that those FVC parameters represented appropriate definitions for severe, moderate and mild IPF. *Id.* at 2210-11 (Crager testimony). Crager conferred with pulmonologists inside and outside of InterMune, but was unable to confirm whether the categories suggested by Harkonen were well-established. *Id.* at 2211 (Crager testimony). Crager ultimately requested that Pharmanet conduct the subgroup analysis using the parameters selected by Harkonen. *Id.* at 2211-12.

Crager received the results from this second subgroup analysis the next day, on August 22, 2002. *Id.* at 2212 (Crager testimony). He delivered them to Harkonen, who then asked Crager to

run the data for two subgroups, those with FVC greater than and less than 55%, essentially combining the moderate and mild IPF sufferers into one group. *Id.* at 2212-13. Crager did so, and he shared the somewhat optimistic results with Harkonen. Only 6 of the 126 (4.8%) participants treated with Actimmune in the mild to moderate group died during the study, while 21 of 128 (16.4%) in the corresponding placebo group died, representing a greater than 70% reduction in mortality. GIPF-001 Study Results at 3UW 021707. This data yielded a p-value of 0.004. *Id.*

The 55% FVC subgroup analysis represented the last new piece of information regarding the GIPF-001 trial received by InterMune and Harkonen prior to the issuance of the August 28, 2002 press release. Thus, in sum, the jury heard competent evidence that (1) the GIPF-001 study showed no efficacy with respect to its primary endpoint, progression-free survival time (p=0.52); (2) none of the secondary endpoints produced a p-value below 0.05; (3) the closest secondary endpoint, survival time, yielded a p-value of 0.084 as a result of 40% decrease in mortality among those treated with Actimmune; (4) a post-hoc subgroup analysis of study participants with an FVC greater than 60% yielded a p-value of 0.02; and (5) a post-hoc, subgroup analysis of study participants with an FVC greater than 55% yielded a p-value of 0.004 as a result of a 70% decrease in mortality among those treated with Actimmune.

On August 28, 2002, InterMune issued a press release purporting to publicize the results of the GIPF-001 trial. *See* Press Release. As will be discussed in more detail below, Harkonen was the controlling force behind the content of the press release. At trial, the government contended that a number of the statements in the press release, as well as the press release as a whole, could be found to be false or fraudulent, including:

> —The headline: "InterMune announces Phase III data demonstrating survival benefit of Actimmune in IPF"
>
> —The subheadline: "Reduces Mortality by 70% in Patients with Mild to Moderate Disease"
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> —"InterMune, Inc. (Nasdaq:ITMN) announced today that preliminary data from its phase III clinical trial of Actimmune (Interferon gamma-1b) injection for treatment of idiopathic pulmonary fibrosis (IPF) . . . demonstrates a significant survival benefit in patients with mild to moderate disease randomly assigned to Actimmune versus control treatment (p = 0.004)."

> —" 'We are extremely pleased with these results, which indicate Actimmune may extend the lives of patients suffering from this debilitating disease,' said W. Scott Harkonen, M.D., President and CEO of InterMune."
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> —"Importantly, Actimmune also demonstrated a strong positive trend in increased survival in the overall patient population, and a statistically significant survival benefit in patients with mild to moderate IPF. In the overall population, there were 16/162 deaths in the Actimmune-treated group (9.9%) compared to 28/168 deaths in the placebo group (16.7%), representing a 40% decrease in mortality in favor of Actimmune vs. placebo (p = 0.084)). Further, of the 254 patients with mild to moderate disease ([Forced Vital Capacity] (FVC) >= 55 percent), there were 6/126 deaths in the Actimmune-treated group (4.8%) and 21/128 deaths in the placebo group (16.4%), representing a 70% decrease in mortality in favor of Actimmune versus placebo (p = 0.004)."

Press Release.

Given the above-discussed evidence and testimony introduced at trial, there was sufficient evidence for the jury to conclude beyond a reasonable doubt that multiple statements contained in the press release were false or fraudulent. First, the jury could have found that the headline of the press release was objectively untrue. The jury heard uncontroverted testimony from Crager and Fleming that any p-value greater than 0.05 indicates that the results of a study are not statistically significant. Throughout the trial, the jury also heard testimony and received evidence that the data for the secondary endpoint of survival time yielded a p-value of 0.084. Accordingly, the jury could have concluded beyond a reasonable doubt that the GIPF-001 study failed to "demonstrat[e]" a survival benefit and thus, that the statement—"Phase III data demonstrat[es] survival benefit of Actimmune in IPF"—was false or fraudulent.

Second, the jury could have found that Harkonen's choice of words in the press release implied causation between Actimmune and the survival of IPF patients, when the data from the study objectively did not establish any such certain and/or verifiable relationship. The jury heard credible testimony that in clinical trials with multiple endpoints, where the primary endpoint is missed, and where researchers conduct post-hoc, subgroup analyses, p-values are unreliable. Thus, depending on the context, sub-0.05 p-values do not "demonstrate", prove, establish or indicate anything. Under such circumstances, secondary endpoint and post-hoc, subgroup analyses can only be used in an exploratory manner, providing researchers with some indication about additional relationships between a drug and a condition that might warrant further investigation. The press

release, however, equates a p-value of less than 0.05 with statistical significance, causation and efficacy without any adjustment for context, including for secondary endpoints and post-hoc analyses. *See* Press Release ("Phase III data *demonstrat[es]* survival benefit of Actimmune in IPF"); *id.* (Actimmune "*Reduces* Mortality by 70% in Patients with Mild to Moderate Disease"); *see also id.* (" 'Actimmune is the only available treatment *demonstrated* to have clinical benefit in IPF.' ").

Magnifying this component of the press release's falsity is the complete omission of any mention that the only results with a p-value less than 0.05—the subgroup analysis of patients with mild to moderate IPF—were observed only after InterMune engaged in retrospective analysis. As the testimony of Crager and Fleming made clear, the import of such a finding cannot possibly be understood unless readers are provided with sampling context. Yet the press release never explains the context in which InterMune arrived at the 0.004 p-value for the mild to moderate IPF subgroup. Further, the press release does not explain that the study protocol set out ten secondary endpoints—of which survival time was ranked as only the seventh most clinically relevant—and that all ten failed to produce statistically meaningful results. These omissions of critical information—especially given that at the time of the press release there was no publically available data for the GIPF-001 such that interested individuals could verify the results—could have formed the basis for the jury's finding of falsity. The court instructed the jury that a statement is false or fraudulent if it "include[s] deceitful statements, half-truths, *or statements which omit material facts*." Jury Instructions at 16 (emphasis added). In light of Crager and Fleming's testimony, the jury could have found beyond a reasonable doubt that the sampling context—the use of multiple endpoints and post-hoc, subgroup analysis—was a material fact that was omitted from the press release, and thus, that the press release was false or fraudulent.

Finally, the jury could have concluded that the press release, as a whole, was false or fraudulent. The overwhelming, undisputed evidence at trial was that the GIPF-001 study was a failure. It missed its primary endpoint as well as all ten secondary endpoints. The press release, however, describes the study as a success—demonstrating a survival benefit and reducing mortality

for those who were treated with Actimmune. To be certain, pharmaceutical companies are permitted to put a positive spin on the results of a clinical trial. They must do so, however, with candor and disclosure. In the instant case, the jury could have found that the press release was so optimistic, in the face of the trial's objective failure, that it constituted fraud.

Harkonen's primary argument against these interpretations of the evidence is that none of the witnesses were properly qualified as experts to testify regarding the truth or falsity of the press release. At the June 24, 2009, hearing on the parties *in limine* motions, the court granted Harkonen's motion to limit the testimony of certain percipient witnesses—namely Dr. Marc Walton ("Walton"), an Associate Director at the FDA who communicated extensively with InterMune about the GIPF-001 and the related press release, and Marianne Armstrong ("Armstrong"), InterMune's Vice President of Regulatory Affairs—who lacked professional and educational backgrounds in pulmonology or biostatistics. Under the Federal Rules of Evidence 701 and 702, the court held that such witnesses would not be permitted to opine regarding the truth or falsity of the statements in the press release, but would be allowed to testify about their conversations or interactions with Harkonen, as such testimony went not to the truth of the matter asserted, but to Harkonen's notice of the alleged infirmities in the press release. Because these witnesses were limited to providing testimony that went to Harkonen's notice, Harkonen asserts that the jury possessed insufficient evidence to conclude that the press release did, in fact, contain at least one false or fraudulent statement.

In so arguing, Harkonen entirely overlooks that the testimony from Crager and Fleming regarding how to interpret statistical results was properly before the jury. Harkonen's motion *in limine* did not seek to exclude opinion testimony from Fleming, despite the fact that Harkonen was on notice that the government might proffer Fleming as an expert witness. *See* Docket No. 127 (Def.'s Mot. *In Limine*) (no mention of Fleming); Docket No. 116 (Gov't's Notice of Expert Testimony) at 5-6 (identifying Fleming as a potential expert witness and laying out his qualifications). Although Harkonen did move to exclude testimony from Crager regarding the truth or falsity of the press release, *see* Def.'s Mot. *In Limine* at 17-18, the above-discussed portions of his

testimony regarding the proper method for interpreting clinical data did not speak directly to the press release's truth or falsity. Rather, he discussed general biostatistics methodology and conventions, about which he was qualified to testify. This testimony was therefore properly admitted.

Further, although the government did not officially proffer either Crager or Fleming as an expert, in its expert witness disclosure, the government did list Crager and Fleming as potential expert witnesses. *See* Gov't's Notice of Expert Testimony; Docket No. 132 (Gov't's Am. Notice of Expert Testimony). At trial, the government entered Fleming's curriculum vitae into evidence, and questioned both Fleming and Crager extensively about their "knowledge, skill, experience, training, or education." Fed. R. Evid. 702. On cross-examination, Harkonen had the opportunity to ask questions that might undermine the jury's confidence in the witnesses' expertise or knowledge of biostatistics methods. To the contrary, however, Harkonen asked both Crager and Fleming numerous questions about statistical methodology. Perhaps most damningly, at no point during the trial did Harkonen ever object to any of Crager or Fleming's testimony about general principles of biostatistics; specifically, no objection was raised to their testimony regarding the inherent problems of interpreting secondary endpoint and post-hoc, subgroup analyses.[2] Such testimony was properly before the jury; and the jury could have relied upon it to conclude that the statements in the press release were false or fraudulent.

Harkonen also suggests that his motion should be granted because that there was sufficient evidence introduced at trial from which the jury could have concluded that the statements in the press release were true. For this argument, Harkonen relies on the testimony of other individuals involved in conducting GIPF-001 and publicizing its results, and upon exhibits admitted at trial. In particular, Harkonen points to statements made by Crager in a patent application filed by InterMune regarding Actimmune.[3] To be certain, a number of witnesses who testified, including Crager, Armstrong and Stephen Rosenfield ("Rosenfield"), InterMune's general counsel, agreed, either contemporaneous with the issuance of the press release or at trial, with some of the statements in the press release, including the statement that the data demonstrated a survival benefit. Such

information may be probative of whether Harkonen possessed an intent to deceive when issuing the press release. However, simply because numerous individuals may have repeated a fraudulent characterization of the data from the GIPF-001 does not make that characterization less false or fraudulent.

Accordingly, the court holds that there was sufficient evidence for the jury to conclude beyond a reasonable doubt that statements in the press release and/or the press release as a whole were false or fraudulent.

B. Knowledge of Falsity

At Harkonen's trial, there was also sufficient evidence for the jury to find that Harkonen knew that the statements in the press release were false—the second element of wire fraud. The government did not introduce any evidence at trial regarding Harkonen's own understanding of biostatistics such that the jury could have inferred that Harkonen knew that the press release's characterization of the data for the survival secondary endpoint and the post-hoc, subgroup analysis were false or fraudulent. Accordingly, the government was required to introduce other evidence that Harkonen was somehow on notice that the manner in which the press release interpreted the data was false or fraudulent.

The evidence showed that Harkonen received the requisite notice on a number of occasions prior to August 28, 2002, the date that the press release was issued. To begin with, the evidence overwhelmingly established that prior to August 28, 2002, Harkonen had been told by multiple sources that the GIPF-001 missed its primary endpoint, progression-free survival time, as well as all ten secondary endpoints, including survival time. *See, e.g.*, TT at 2204 (Crager testifying about informing Harkonen on August 16, 2002, that the study had missed the primary and all secondary endpoints); *id.* at 684-86 (Fleming informing Harkonen at an August 19, 2002, meeting of the Steering Committee that the study had missed the primary and all secondary endpoints and that "the trial had not provided evidence that Actimmune provides a clinically-meaningful effect."); Gov't Exh. 61 (Draft Minutes of August 27, 2002, conference call with FDA, on which Harkonen was

copied in which Dr. Marc Walton reemphasized that the study missed its primary and all secondary endpoints).

More importantly, at least two individuals informed Dr. Harkonen that the survival "trend" in the secondary survival endpoint and the 0.004 p-value for the post-hoc, subgroup analysis of the mild to moderate IPF sufferers were interesting findings, but unreliable and inconclusive. On August 26, 2002, at a meeting at InterMune's headquarters, Dr. Steven Porter, InterMune's Senior VP of Clinical Affairs and Chief Medical Officer, informed Harkonen that "[i]t was impossible to know if these findings [the secondary endpoint of survival and the subgroup analysis] were real or not." TT at 1366; *see id.* at 1364 (Porter indicating to Harkonen "that around the observations on survival that it was impossible to tell whether they were chance or real"). On August 27, 2002, InterMune, including Harkonen, Crager, Pennington, Porter and others, initiated a conference call with Drs. Jim Kaiser, Dwayne Rieves, and Marc Walton from the FDA. Armstrong recorded minutes of the meeting which were then circulated among the InterMune employees who were on the call so that they could make any edits they deemed appropriate. The final version of the minutes indicates that Walton stated that "because the physiologic measurements did not show any apparent treatment effect, the decrease in mortality in his opinion could be considered 'almost an anomalous finding in the face of no effect on pulmonary function and so warrants extra caution.' Furthermore, he stated '[t]here was no way to give it [the survival data] a meaningful p-value in the face of the failed primary endpoint.' " Def. Exh. 671 (Minutes from August 27, 2002, conference call with FDA).

Accordingly, the government introduced sufficient evidence from which the jury could conclude that Harkonen was on notice (1) that the study failed to meet its primary endpoint and any of its secondary endpoints, and (2) that no conclusions could be drawn from the data regarding a survival benefit (both regarding the secondary endpoint and the post-hoc subgroup). From these inferences, the jury could have found beyond a reasonable doubt that Harkonen knew the statements in the press release trumpeting the success of the study were false.

C. Intent to Defraud

The jury also could infer from evidence introduced at trial that Harkonen issued the document with an intent to defraud. The press release itself indicates Harkonen's financial motivation; the release states in its third paragraph InterMune expected that the results of the GIPF-001 study would "lead to peak sales in the range of $400 - $500 million per year, enabling [InterMune] to achieve profitability in 2004 as planned." Press Release. Stephen Rosenfield, InterMune's general counsel at the time, testified that the press release was the most important in the company's history. TT at 2560, 3285-86, 3366. Further, given the testimony about Harkonen's role in the company as the CEO, the jury could have concluded that he and the company stood to benefit substantially if Actimmune sales increased.

Finally, the efforts engaged in by Harkonen to prevent certain individuals, both outside and inside InterMune, from reviewing the press release serves as powerful circumstantial evidence of his intent to defraud, as well as his knowledge of falsity. To draft the release, Harkonen worked with James Weiss ("Weiss"), the head of Weiscomm, a communications firm that helps companies in drafting press releases. Weiss and Harkonen began trading drafts on August 25, 2002, and continued to refine the press release until it was finalized on August 27, 2002. Gov't Exhs. 13-14 (Email with attachment from Weiss to Harkonen dated August 25, 2002). Prior to the August 27, 2002 offsite meeting of the steering committee for the GIPF-001 study, no one other than Harkonen or Weiss viewed any of the drafts of the press release. TT at 2562-81 (Weiss testimony). During that meeting, Armstrong, Porter and Crager were able to briefly view a draft of the release by looking over Weiss' shoulder, but were not provided with an opportunity to comment on its contents. TT at 2584 (Weiss testimony). None of them was provided with a full version of the press release at that time or any time before its issuance. *Id.* Toward the end of the meeting, Armstrong, Porter and Crager had gathered around Weiss to attempt to examine the press release; Harkonen ordered Weiss out of the conference room and sent him back to InterMune's headquarters so that he would not be bothered. *Id.* at 2588 (Weiss testimony). Although some InterMune employees, including James Donovan from InterMune's investor relations and Rosenfield did review the entire press release before it was issued the following morning, no one with a medical or statistical

background or who had reviewed the data from the GIPF-001, ever reviewed the press release prior to its issuance. *Id.* at 2577 (Weiss testimony). This lack of review occurred despite testimony from Weiss that on other occasions when he worked with InterMune on pharmaceutical related press releases, he had access to the raw data as well as InterMune's medical staff. *Id.* at 2581 (Weiss testimony). Although this testimony about Harkonen's departure from normal press release procedures and his desire to prevent his technical staff from reviewing the press release, standing alone, would likely have been insufficient to satisfy the intent to defraud element of wire fraud, in conjunction with the other evidence in the record and discussed above, it could have bolstered the jury's finding with respect to intent.

Accordingly, the court holds that the government introduced sufficient evidence for the jury to find beyond a reasonable doubt that Harkonen acted with the intent to defraud.

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Having found that the government introduced sufficient evidence to satisfy each of the elements of wire fraud beyond a reasonable doubt, defendant Harkonen's motion for a judgment of acquittal under Federal Rule of Criminal Procedure 29 is DENIED.

II. Rule 33 Motion

The court further finds that the evidence in this case did not "preponderate sufficiently heavily against the verdict that a miscarriage of justice may have occurred." *A. Lanoy Alston, D.M.D., P.C.*, 974 F.2d at 1212. The court incorporates, by reference, the preceding discussion of the evidence introduced at trial, both in favor of and against conviction. Although Harkonen cites to some additional evidence that militated in favor of an acquittal—that none of the statistics cited in the press release were false; that on August 23, 2002, Crager characterized the results of the trial as showing a trend of a survival benefit, TT at 2342-43; that Walton testified that debate about the meaning of p-values can be "vigorous," *id.* at 632-33; that Crager testified that the 55% FVC cutoff for mild to moderate IPF was an appropriate cutoff according to the scientific understanding of IPF, *id.* at 2309; that Armstrong testified to telling the FDA in 2003 that three clinical trials of Actimmune, of which the GIPF-001 was one, "demonstrated a survival benefit," *id.* at 2023-24; that

Rosenfield testified that Crager was "euphoric" about the subgroup analysis, *id.* at 3094-95, and that Crager and Pennington had used the word "demonstrating" with respect to survival benefit prior to the issuance of the press release, *id.* at 3136-37; that personnel at InterMune later stood by the press release's characterization of the data, *id.* at 2023-25 (Armstrong testimony); *id.* at 3393-94 (Rosenfield testimony); *id.* at 1617-18 (Dr. Wayne Hockmeyer, member of the InterMune board of directors at the time of the press release's dissemination, testifying that Pennington stood by the characterization of the data at the September 2002 InterMune board meeting); that Crager admitted to never complaining to anyone at InterMune about the accuracy of the press release prior to his leaving the company, *id.* at 2301-02; and that InterMune personnel characterized the data in a positive light in documents created both before and after the issuance of the press release, Gov't Exh. 12 at 4 (Slide created by Crager summarizing the key results of the GIPF-001); Def. Exh. 718 at 36 (Patent application); Gov't Exh 288 at 84 (InterMune's Final Clinical Study Report for the GIPF-001, which was submitted to the FDA)—no miscarriage of justice occurred in his trial. The government met its burden of proof, and did so convincingly. Furthermore, none of the other grounds for acquittal or a new trial argued for by Harkonen and discussed fully below, alter the court's appraisal of the proceedings. Accordingly, Harkonen's motion for a new trial pursuant to Rule 33 is DENIED.

III. Motion to Dismiss or Acquit Under First Amendment

Having found that the government introduced sufficient evidence to support Harkonen's conviction for wire fraud and that the "interests of justice" do not compel a new trial, the court need not expend much energy discussing Harkonen's arguments for dismissal on First Amendment grounds. On June 4, 2009, before Harkonen's trial, the court denied a motion to dismiss the indictment on First Amendment grounds. *United States v. Harkonen*, No. C 08-00164 MHP, 2009 WL 1578712 (N.D. Cal. June 4, 2009). The court held that because, at least according to the indictment, the speech at issue was not "First Amendment-protected as pure scientific speech or ideas, the court must allow the case to advance to a jury for determination of whether the

government can prove the fraud charges based on speech that may be entitled to lesser protection under the First Amendment." *Id.* at *8.

The jury concluded that Harkonen committed wire fraud by knowingly issuing false or fraudulent statements in the August 28, 2002 press release with an intent to defraud. As a result, the First Amendment provides Harkonen with no defense from his conviction, as "it is well settled that the First Amendment does not protect fraud." *United States v. Philip Morris USA Inc.*, 566 F.3d 1095, 1123 (D.C. Cir. 2009) (citing *McIntyre v. Ohio Elections Comm'n*, 514 U.S. 334, 357 (1995)); *see, e.g.*, *United States v. Lyons*, 472 F.3d 1055, 1066 (9th Cir. 2007) (holding, with respect to mail fraud conviction, that the First Amendment does not "insulate[] defendants from criminal prosecution for fraudulent misrepresentations"). Accordingly, Harkonen's motion to dismiss the indictment or for a new trial grounded in the First Amendment is therefore DENIED.

IV. Motion to Dismiss or Acquit Under Fifth Amendment

Harkonen's assertion that he is entitled to the dismissal of the indictment or a judgment of acquittal under the Fifth Amendment because he was not provided with fair notice that the conduct he engaged in was criminal requires only slightly more discussion. Harkonen is certainly correct that in order to protect individuals' Fifth Amendment rights, criminal statutes must provide explicit guidance regarding what is illegal and what is not. *See, e.g.*, *Vill. of Hoffman Estates v. The Flipside*, 455 U.S. 489, 498 (1982) ("[W]e insist that laws give the person of ordinary intelligence a reasonable opportunity to know what is prohibited, so that he may act accordingly. Vague laws may trap the innocent by not providing fair warning."). In certain circumstances, vagueness concerns might imperil a conviction for wire fraud. *See, e.g.*, *United States v. Bruchhausen*, 977 F.2d 464 (9th Cir. 1992) (dismissing indictment and reversing conviction for wire fraud because the word "property" in the wire fraud statute could not be read to include either (1) manufacturers interest in controlling who possessed goods that were fully paid for or (2) the United States' "ethereal" forfeiture interest in the goods that were sold).

The instant case does not, however, implicate any vagueness concerns. As the above-discussion details, the jury had before it sufficient evidence to conclude that Harkonen

misrepresented the GIPF-001 results by stating that the data demonstrated a survival benefit when it, in fact, did not demonstrate anything. Further, Harkonen's omission of the material fact that the data regarding the mild to moderate subgroup was derived from post-hoc analysis also subjected him to criminal liability. In other words, the jury could have concluded that the statements in the press release were objectively false, and not open to any reasonable interpretation. To contend that Harkonen was not on notice that if he lied in a press release about the success of clinical trial for a drug that might have sales as high as $500 million per year is simply ludicrous. The cases relied upon by Harkonen do not require the court to reach a different conclusion.[4]

Harkonen also argues that since no law or regulation other than the wire fraud statute placed him on notice that his conduct was criminal, his Fifth Amendment rights were violated. In so arguing, Harkonen mischaracterizes the nature of his criminal violation. Admittedly, there is no law that precludes a company from reporting results of a post-hoc, subgroup analysis in a press release touting the results of a clinical trial. In fact, there was substantial testimony from Crager and Fleming that such analyses are good science and part of the investigatory process. There is, however, a law—the wire fraud statute—that prohibits individuals from making objective misrepresentations about clinical trial results and from omitting material facts about the nature of the analysis of those results with an intent to defraud. The wire fraud statute provided Harkonen with more than sufficient notice about what was legal and what was illegal.

Accordingly, Harkonen's motion to dismiss the indictment and for acquittal on Fifth Amendment grounds is DENIED.[5]

V. Motion for New Trial because of Erroneous Evidentiary Rulings

Harkonen asserts that the court issued three erroneous evidentiary rulings that entitle him to, at a minimum, a new trial. The court addresses each independently.

Firstly, Harkonen contends that the court erred in excluding evidence, proffered by Harkonen, that the FDA took no formal action to condemn the issuance of the press release. *See* Docket No. 152 (Hearing Transcript, 6/24/09) at 60-61. The court ruled that such evidence was irrelevant because "there are a whole variety of reasons" why an agency may or may not take action.

Id. at 60. The court stands by its initial ruling, as evidence of FDA action or inaction would have had no bearing on either the falsity of the press release or Harkonen's state of mind.

Secondly, Harkonen argues that the court impermissibly excluded a set of analyst reports interpreting the press release and the results of the Phase III trial. *See* TT at 1200-01. The court excluded the reports as inadmissible hearsay, and rejected Harkonen's contention that they could be admitted through the business records exception to the hearsay rule. Harkonen now argues that the reports were admissible as non-hearsay to demonstrate that Harkonen could reasonably believe in the accuracy and appropriateness of the press release. Harkonen preserved this argument in his opposition to the government's motion to exclude the analyst reports. *See* Docket No. 180 (Response to Govt's Objections to Hearsay and Reliance Evidence) at 5-6. Harkonen's argument remains unpersuasive. The jury instructions clearly explained that Harkonen could only be found guilty of wire fraud if the contents of the press release were false or fraudulent. Analyst reports interpreting the press release after its issuance cannot possibly reflect on Harkonen's state of mind as he was issuing the press release over the wires. Those analyses are thus irrelevant to the wire fraud count.

Finally, Harkonen complains that the court improperly permitted Fleming, Crager and Armstrong to testify, over objection, regarding the truth or falsity of the press release. In each instance, however, the testimony was properly admissible to explain the witnesses' state of mind and why they engaged in certain conduct. Accordingly, none of the purported evidentiary errors that occurred during Harkonen's trial would justify dismissal or a new trial.

VI. Motion for New Trial Because of Prosecutorial Misstatements

Harkonen also contends that the prosecutor made three misstatements during closing arguments that necessitate a new trial: (1) that InterMune "never sought a label for Actimmune for IPF" (even though Harkonen asserts it spent millions of dollars seeking FDA approval), TT at 3708; (2) that an August 27, 2002, phone call, between Drs. Kaiser and Walton, both FDA employees, and various InterMune employees, was an official "FDA call" (even though both parties acknowledge it was an unofficial conversation), *id.* at 3584-85; and (3) that numerous witnesses, including Drs.

Fleming, Crager, Porter, Schwieterman and Armstrong, testified as to the falsity of the August 28, 2002 press release (when, in fact, they were only permitted to testify as to Harkonen's notice regarding the contents of the press release), *id.* at 3698-99.

Prosecutorial misconduct justifies granting a new trial, when, "considered in the context of the entire trial, that conduct appears likely to have affected the jury's discharge of its duty to judge the evidence fairly." *United States v. Simtob*, 901 F.2d 799, 806 (9th Cir. 1990) (citing *United States v. Young*, 470 U.S. 1, 11 (1985)). Because Harkonen did not make contemporaneous objections to any of the purported misstatements, his prosecutorial conduct claims face an uphill battle; a district court's denial of a motion for a new trial predicated on accusations of prosecutorial misconduct or misstatements to which the defendant did not object at trial is reviewed only for plain error, *see United States v. Sanchez*, 176 F.3d 1214, 1218 (9th Cir. 1999).

To begin, even assuming the first two alleged misstatements were in fact misstatements, they do not require a new trial. Both statements, especially the first, were of relatively minor import and neither were central to the jury's primary considerations for the wire fraud count: the falsity of the August 28, 2002 press release and Harkonen's intent in drafting and issuing the press release. The statement regarding whether InterMune sought a label, i.e., FDA approval, for Actimmune was primarily related to the misbranding count, and was nearly irrelevant to the wire fraud count. As for the use of the phrase "FDA call" and its potential to confuse the jury as to the unofficial nature of that call, it is clear, when viewed in the context of the prosecutor's argument, that the phrase was simply used as a shorthand. Further, the prosecutor emphasized in the same stage of her argument that the "the call was unofficial. FDA made that clear up front . . . ." TT at 3585.

The prosecutor's statements regarding various doctors' views of the reliability of the data from the GIPF-001 study presents a slightly closer issue. Harkonen is correct that the government was limited to presenting those individuals' views for the notice they provided to Harkonen about the potential inaccuracies in the press release, and not as proof of the press release's actual falsity. At points, the prosecutor's argument came close to asserting that the witnesses testified regarding the falsity of the press release. Because the truth or falsity of the press release was absolutely central

to the trial, the prosecutor ought to have more carefully cabined her comments. Still, when viewed in the context of the relevant portion of her rebuttal argument, the statements ultimately do go to notice as opposed to falsity. As a run-up to the challenged statements, the prosecutor said that Harkonen was "told time and again that the trial did not demonstrate a survival benefit." *Id.* at 3697. The prosecutor then proceeded to list a number of instances in which Harkonen was put on notice of the problems with the press release and his interpretation of the study's results. The prosecutor concluded this section of her argument with the following passage, to which Harkonen primarily objects:

> Every single witness: Professor Fleming, Michael Crager, Steven Porter, Marianne Armstrong, although for her it really was for notice to the defendant, Dr. Schwieterman, . . . every single one of them said either before or after the press release, and some of them before and after the press release, that you couldn't rely on this data.

Id. at 3698-99. Harkonen contends that by specifying that Armstrong's testimony "really was for notice to the defendant," the prosecutor insinuated that the other witnesses were testifying regarding something else, namely the falsity of the press release. However, by referring to what the witnesses testified to regarding what they "said either before or after the press release," the prosecutor made clear that she was discussing Harkonen's notice of their views, not the views themselves. Viewed in that manner, the prosecutor's statement goes to notice, not falsity. Accordingly, because the prosecutor's statement was proper, Harkonen is not entitled to a new trial.

VII. Motion for New Trial Because of Improper Jury Instructions

Finally, Harkonen asserts that two errors in the jury instructions necessitate a new trial. First, Harkonen objects to the court's refusal to grant his request to deliver a "good faith" instruction. Second, Harkonen contends that the court erred in including an instruction that permitted the jury to convict Harkonen of the wire fraud count based on half-truths or omissions.

Neither of Harkonen's complaints entitles him to a new trial. To begin, it is well established in the Ninth Circuit that "a criminal defendant has no right to any good faith instruction when the jury has been adequately instructed with regard to the intent required to be found guilty of the crime charged . . . ." *United States v. Shipsey*, 363 F.3d 962, 967 (9th Cir. 2004) (internal citation and

quotation marks omitted). Harkonen concedes that the court delivered an instruction indicating that Harkonen could only be convicted if the jury found that he had the specific "intent to defraud"; Harkonen asserts, however, that the "intent to defraud" instruction was confusing and thus insufficient to adequately instruct the jurors. Specifically, Harkonen contends that Instruction No. 22, which defines both "intent to defraud" and "intent to mislead" failed to adequately distinguish between the elements of wire fraud and felony misbranding.

Written Instruction 16 provided that to convict Harkonen, the jurors must find beyond a reasonable doubt that "the defendant acted with the intent to defraud." Jury Instructions at 16. The instruction contained a cross reference, instructing the jurors to "[s]ee Instruction No. 22 for definition of intent to defraud." *Id.* The first paragraph of Instruction No. 22 explains that:

> [t]o act with 'intent to defraud' means to act knowingly with the specific intent to deceive or cheat, ordinarily for the purpose of either causing some financial loss to another or bringing about some financial gain to one's self. It is not necessary, however, to prove that anyone was, in fact, defrauded as long as it is established beyond a reasonable doubt that the defendant acted with intent to defraud.

Id. at 23. The second paragraph of Instruction No. 22 provides a definition of "intent to mislead." The third paragraph explains that intent can be proved indirectly through circumstantial evidence. The fourth and final paragraph provides that "[t]he element 'intent to defraud or mislead' is written in the disjunctive. Thus you can find either that the defendant's actions were done with the intent to defraud or the intent to mislead, as long as all of you agree which intent and which object." Harkonen believes that by placing the "intent to defraud" and "intent to mislead" instruction on the same page, Instruction No. 22 impermissibly combined the elements of wire fraud and felony misbranding. As a result, Harkonen argues, "jurors reasonably but erroneously could have applied 'intent to mislead' to the wire fraud count." Docket No. 247 (Def.'s Mot.) at 44.

Such an instruction might have been confusing if the jurors were relying solely upon the written instructions. During the oral delivery of the instructions, however, the court clarified that "intent to mislead" applied only to the misbranding count. First, in delivering the "intent to defraud" portion of Instruction 16, the court stated "I'm going to explain that a little bit later, because that term is used in both; for both counts. And I'll explain what 'intent to defraud' means. And I will

write in here and tell you to see instruction number 22 for that definition—that will come a bit later." TT at 3554. Later, in explaining Instruction No. 22, the court repeatedly pointed out to the jury the distinction between the elements of the two counts. After defining "intent to defraud," the court stated "so keep in mind: that applies to both counts." *Id.* at 3558. Before defining "intent to mislead," the court clarified that "this definition—to act with 'intent to mislead'—applies only to the misbranding." *Id.* The court continued, explaining that "in the first count—the wire fraud—the word 'mislead' is not used in the element. It's just 'with 'intent to defraud.' " *Id.* The court then separately defined "intent to mislead." Finally, when the court explained the phrase "intent to defraud or mislead" is written in the disjunctive, the court again clarified that the an "intent to mislead" applied only to the misbranding count. *Id.* at 3559. These oral clarifications by the court were more than sufficient to accurately instruct the jury that, in order to convict Harkonen of the wire fraud count, it must find beyond a reasonable doubt that he possessed a specific intent to defraud. Because the instructions adequately informed the jury that wire fraud is a specific intent crime, the court properly denied Harkonen's request for a good faith instruction.

Harkonen next argues that the instructions, by permitting the jury to convict him "on the basis of half-truths or omissions," constituted an unconstitutional material variance from the indictment, requiring a new trial. The court resolved a lengthy pretrial dispute between the parties over the scope of the wire fraud charge in the indictment by ruling that the government could only prove wire fraud on the basis of "false or misleading" statements, as opposed to scheme liability. *See* Docket No. 178 (Transcript, 8/6/09) at 4-14. The instruction, in fact, limited Harkonen's potential criminal liability in exactly that manner. Before the jury could convict Harkonen of wire fraud, the instructions required the government to prove beyond a reasonable doubt that the August 28, 2002 press release contained at least one "false or fraudulent statement." *See* Jury Instructions at 16 ("Second, the defendant knew that the statements made in the August 28, 2002 press release were false or fraudulent at the time they were made.").[6] Instruction No. 16 defined a false or fraudulent statement as "deceitful statements, half-truths, or statements which omit material facts." Jury Instructions at 16. Such a definition is well accepted within the Ninth Circuit. *See Woods,* 335 F.3d

at 998; *Lustiger*, 386 F.2d at 138 ("[D]eceitful statements of half truths or the concealment of material facts is actual fraud violative of the [wire] fraud statute. . . . [T]he deception need not be premised upon verbalized words alone. The arrangement of the words, or the circumstances in which they are used may convey the false and deceptive appearance."). Because the instruction was proper and did not materially vary from the indictment, it does not provide grounds for a new trial.

CONCLUSION

For the aforementioned reasons, defendant Harkonen's post-trial motion is DENIED in its entirety.

IT IS SO ORDERED.

Dated: July 27, 2010

MARILYN HALL PATEL
United States District Court Judge
Northern District of California

ENDNOTES

1. Marianne Armstrong, InterMune's Vice-President of Regulatory Affairs, the fourth member of the SMC, was not unblinded at the time; pursuant to the protocol, she would only be unblinded on an ad-hoc basis. *See* Plan for Sponsor Management Committee Assessment of Study GIPF-001.

2. Although it does not factor in the court's analysis, the court has little doubt that if the government had formally proffered Fleming or Crager as expert witnesses, the court would have so qualified them. Harkonen conceded as much, at least with respect to Crager, during the *in limine* motion hearing. Harkonen's counsel explained that Crager is "a biostatistician. He can say whatever he wants, you know. What I'm saying: he can say whatever is appropriate as an expert if he's duly qualified. *It's hard for us to argue that he's not qualified as a biostatistician, since he's working for the company. And I think it's fair to say that he will be qualified.*" Docket No. 152 (*In Limine* Hearing Transcript) at 38 (emphasis added).

3. The patent application, on which Crager was identified as a co-inventor, included the statements that "[a] statistically significant improvement in probability or survival was apparent in certain subpopulations of the treatment and placebo groups" and that "[t]here is strong statistical evidence the [Actimmune] has a positive survival effect in [patients with mild to moderate FVC]." Def. Exh. 718 (Patent Application) at ITM_CBNY19106, ITM_CBNY19107. The statements sworn to by Crager in the patent application are irrelevant, however. Whether Crager believed that the statements in the press release were false or fraudulent speaks not at all to whether the statements were objectively false or fraudulent.

4. Each of the cases cited by Harkonen is readily distinguishable.

In *United States ex rel. Haight v. Catholic Healthcare West*, 2007 WL 2330790, at *2 (D. Ariz. Aug. 14, 2007), the court granted summary judgment for the defendant in a False Claims Act action because the alleged misstatements of scientific fact in an NIH grant application that formed the basis for the action were colorably true. In the instant case, as discussed above, Harkonen's statement that the GIPF-001 demonstrated a survival benefit was objectively false.

In *In re Medimmune, Inc. Securities Litigation*, 873 F. Supp. 953 (D. Md. 1995), the court granted the defendants' motion to dismiss a shareholder lawsuit. Harkonen seizes on a quotation from the case—that "[m]edical researchers may well differ over the adequacy of given testing procedures and the interpretation of test results." *Id.* at 966. Harkonen ignores, however, that the court dismissed the case not because the statements made by representatives of the company were not false or fraudulent, as a matter of law, since they touched upon issues of scientific debate, but rather because plaintiffs failed to adequately plead facts to support the requisite scienter—that defendant acted in "bad faith or . . . with an intent or recklessly to deceive, manipulate, or defraud." *Id.* In the case at bar, the court has already discussed the evidence introduced at trial regarding Harkonen's intent to defraud.

In re Biogen Securities Litigation, 179 F.R.D. 25 (D. Mass. 1997), cited by Harkonen for the proposition that failure to disclose that a study failed to meet its primary endpoint and secondary endpoints could not form the basis for a securities class action, actually supports the government in Harkonen's case. In *Biogen*, the court found that some, but not all, of the alleged misrepresentations made by the defendants could support a shareholder action. To begin with, the court held that the following statements—"that the results of the 'pivotal TIMI-7 trial' encouraged Biogen, that 'what we've seen to date looks good' and that 'we believe that given positive clinical results we have a very large potential market for the drug,' " *id.* at 36—were sufficiently definite to serve as the foundation of a fraud claim. The claim by Harkonen that the GIPF-001 demonstrated a survival benefit, along with the generally positive tone of the press release, are similar in nature. More importantly, the misstatements of fact rejected by the court differed in material ways from the statements made by Harkonen in the press release. In *Biogen*, the plaintiffs sought to predicate the defendants' liability on defendants' failure to disclose that the positive results of the study were achieved solely through post-hoc, retrospective analysis and to explain that the study had missed all twenty-four of its secondary endpoints. As in *Medimmune*, the court rejected such claims because of the plaintiffs' failure to support

the scienter element of fraud, and not because the omissions could not satisfy the first element—a false or fraudulent statement—of a fraud claim.

In *DeMarco v. Depotech Corp.*, 149 F. Supp. 2d 1212, 1224-25, 1230-31 (S.D. Cal. 2001), a court dismissed a securities class action because, in Harkonen's words, the "plaintiffs only established a *legitimate* difference of opinion as to the proper statistical analysis." Docket No. 247 (Def.'s Mot.) at 16 (emphasis added). Here, however, as is discussed at length above, the press release's characterization of the GIPF-001's results were illegitimate and objectively false.

Finally, in *Noble Asset Management v. Allos Therapeutics*, 2005 WL 4161977, at *6-8 (D. Colo. Oct. 20, 2005), the defendant disclosed in a press release that certain results from its study were the product of post-hoc subgroup analysis. The court dismissed plaintiffs claims because plaintiffs merely complained that the defendant did not explicitly state that, according to the FDA, post-hoc subgroup analyses, are exploratory. Because the FDA had made public its position regarding such analyses, the defendant's omission of the information could not form the basis for a fraud claim. Quite obviously, Harkonen's case differs because the press release that he drafted fails entirely to disclose that the reduction in mortality for those with mild to moderate IPF was observed only through post-hoc, subgroup analysis.

5. On July 7, 2010, Harkonen filed a motion for leave to file a supplemental brief regarding the impact of a recent Supreme Court case, *Skilling v. United States*, 130 S. Ct. 2896 (2010), on his Fifth Amendment notice claims. Docket No. 264 (Mot. for Leave to File Supp. Br.). *Skilling* involved a defendant's challenge to the "honest services" provision of the wire fraud statute, which provides that one type of a "scheme or artifice to defraud" punishable as wire fraud is "a scheme or artifice to deprive another of the intangible right of honest services." 18 U.S.C. § 1346. In *Skilling*, the Supreme Court narrowed the reach of the "honest services" provision to "encompass only bribery and kickback schemes" in order to avoid construing the statute in a manner that would give rise to fair notice and vagueness challenges. *Skilling*, 130 S. Ct. at 30.

While *Skilling* addresses the issue of fair notice in a general manner, the decision has absolutely no bearing on Harkonen's case. Harkonen was charged with and convicted of violating 18 U.S.C. section 1343, the wire fraud statute. As discussed above, Harkonen was on notice that if he sent a misrepresentation using the wires as part of a scheme to defraud, he could be prosecuted under section 1343. The "honest services" provision, narrowed by the Supreme Court in *Skilling*, played no role in this prosecution. Therefore, Harkonen's motion for supplemental briefing is DENIED.

6. In full, Instruction No. 16 provides:

> The defendant is charged in Count One of the indictment with wire fraud in violation of Section 1343 of Title 18 of the United States Code. In order for the defendant to be found guilty of that charge, the government must prove each of the following elements beyond a reasonable doubt:
>
> First, the defendant made a scheme or plan to defraud by making false or fraudulent statements, with all of you agreeing on at least one false or fraudulent statement that was made. False or fraudulent statements may include deceitful statements, half-truths, or statements which omit material facts. A statement is false or fraudulent if known to be untrue or made with wanton or reckless disregard for its truth or falsity and made with the intent to deceive.
>
> Second, the defendant knew that the statements made in the August 28, 2002 press release were false or fraudulent at the time they were made.
>
> Third, the statements were material; that is, they had a natural tendency to influence, or were capable of influencing, a person to part with money or property. It is not necessary for the government to prove that the scheme was successful, that the defendant actually realized any gain from the scheme, or that an intended victim actually

suffered any loss.

Fourth, the defendant acted with the intent to defraud. [See Instruction No. 22 for definition of intent to defraud]

Fifth, the defendant used, or caused to be used, the interstate wires to carry out or attempt to carry out the scheme.

A wire communication is caused when one knows that the wires will be used in the ordinary course of business or when one can reasonably foresee such use. It does not matter whether the thing sent by the wire was itself false or deceptive so long as the wires were used as part of the scheme.